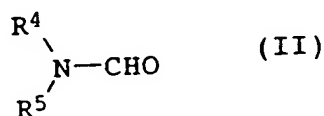


# CLEAN VERSION OF AMENDED CLAIMS - OZ 50724

3. A process as claimed in claim 1, wherein the carboxamide hydrohalide used is N,N-dimethylformamide hydrochloride.
4. A process as claimed in claim 1, wherein the treatment with the carboxamide hydrohalide is carried out at a temperature of from -15 to 80°C and a pressure of from 0.5 to 5.0 bar abs.

5. A process as claimed in claim 1, wherein, as catalyst precursor for the catalyst adduct to be formed, an N,N-disubstituted formamide of the formula (II) is used



in which R<sup>4</sup> and R<sup>5</sup> independently of one another are C<sub>1</sub>- to C<sub>4</sub>-alkyl, or R<sup>4</sup> and R<sup>5</sup> together are a C<sub>4</sub>- or C<sub>5</sub>-alkylene chain.

6. A process as claimed in claim 1, wherein the catalyst precursor according to the formula (II) used is N,N-dimethylformamide.
7. A process as claimed in claim 3, wherein the N,N-dimethylformamide hydrochloride, after it has been used as treatment agent, is used as catalyst

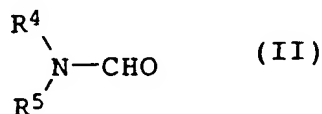
CLEAN VERSION OF AMENDED CLAIMS - OZ 50724

precursor in the carbonyl chloride synthesis.

8. A process as claimed in claim 1, wherein most of the carbonyl chlorides used originate from the reaction of carboxylic acids with phosgene in the presence of a catalyst adduct.
9. A process as claimed in claim 1, wherein the carbonyl chlorides to be purified are acetyl chloride, propionyl chloride, butyryl chloride, valeryl chloride, isovaleryl chloride, pivaloyl chloride, caproyl chloride, 2-ethylbutyryl chloride, enanthyl chloride, capryloyl chloride, 2-ethylhexanoyl chloride, pelargonoyl chloride, isononanoyl chloride, capryl chloride, neodecanoyl chloride, lauroyl chloride, myristoyl chloride, palmitoyl chloride, stearoyl chloride, oleoyl chloride, linoleoyl chloride, linolenoyl chloride, arachidoyl chloride and behenoyl chloride, and mixtures thereof.
-

MARKED VERSION OF AMENDED CLAIMS - OZ 50724

3. A process as claimed in claim 1 [claims 1 to 2], wherein the carboxamide hydrohalide used is N,N-dimethylformamide hydrochloride.
4. A process as claimed in claim 1 [claims 1 to 3], wherein the treatment with the carboxamide hydrohalide is carried out at a temperature of from -15 to 80°C and a pressure of from 0.5 to 5.0 bar abs.
5. A process as claimed in claim 1 [claims 1 to 4], wherein, as catalyst precursor for the catalyst adduct to be formed, an N,N-disubstituted formamide of the formula (II) is used



in which R<sup>4</sup> and R<sup>5</sup> independently of one another are C<sub>1</sub>- to C<sub>4</sub>-alkyl, or R<sup>4</sup> and R<sup>5</sup> together are a C<sub>4</sub>- or C<sub>5</sub>-alkylene chain.

6. A process as claimed in claim 1 [claims 1 to 5], wherein the catalyst precursor according to the formula (II) used is N,N-dimethylformamide.
7. A process as claimed in claim 3 [claims 3 to 6], wherein the

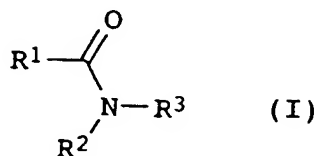
MARKED VERSION OF AMENDED CLAIMS - OZ 50724

N,N-dimethylformamide hydrochloride, after it has been used as treatment agent, is used as catalyst precursor in the carbonyl chloride synthesis.

8. A process as claimed in claim 1 [claims 1 to 7], wherein most of the carbonyl chlorides used originate from the reaction of carboxylic acids with phosgene in the presence of a catalyst adduct.
9. A process as claimed in claim 1 [claims 1 to 8], wherein the carbonyl chlorides to be purified are acetyl chloride, propionyl chloride, butyryl chloride, valeryl chloride, isovaleryl chloride, pivaloyl chloride, caproyl chloride, 2-ethylbutyryl chloride, enanthyl chloride, capryloyl chloride, 2-ethylhexanoyl chloride, pelargonoyl chloride, isononanoyl chloride, capryl chloride, neodecanoyl chloride, lauroyl chloride, myristoyl chloride, palmitoyl chloride, stearoyl chloride, oleoyl chloride, linoleoyl chloride, linolenoyl chloride, arachidoyl chloride and behenoyl chloride, and mixtures thereof.

CLAIMS AS FILED - OZ 50724

1. A process for the purification of carbonyl chlorides which have been prepared by reacting carboxylic acids with phosgene or thionyl chloride in the presence of a catalyst adduct, which comprises treating the carbonyl chlorides with a hydrohalide of carboxamides of the formula (I)

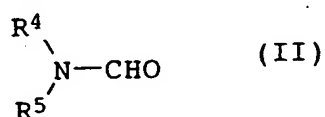


in which R<sup>1</sup> is hydrogen or a C<sub>1</sub>- to C<sub>3</sub>-alkyl; R<sup>2</sup> and R<sup>3</sup> independently of one another are C<sub>1</sub>- to C<sub>4</sub>-alkyl, or R<sup>2</sup> and R<sup>3</sup> together are a C<sub>4</sub>- or C<sub>5</sub>-alkylene chain, the mutual solubility of the carbonyl chlorides and the hydrohalides of the carboxamides (I) being low, and isolating the carbonyl chloride purified in this way by separation from the carboxamide hydrohalide phase.

2. A process as claimed in claim 1, wherein, for the treatment of the carbonyl chlorides, an amount of carboxamide hydrohalide of from 1 to 80% by weight, based on the amount of carbonyl chloride employed, is used.
3. A process as claimed in claim 1, wherein the carboxamide hydrohalide used is N,N-dimethylformamide hydrochloride.

CLAIMS AS FILED - OZ 50724

4. A process as claimed in claim 1, wherein the treatment with the carboxamide hydrohalide is carried out at a temperature of from -15 to 80°C and a pressure of from 0.5 to 5.0 bar abs.
5. A process as claimed in claim 1, wherein, as catalyst precursor for the catalyst adduct to be formed, an N,N-disubstituted formamide of the formula (II) is used



in which R<sup>4</sup> and R<sup>5</sup> independently of one another are C<sub>1</sub>- to C<sub>4</sub>-alkyl, or R<sup>4</sup> and R<sup>5</sup> together are a C<sub>4</sub>- or C<sub>5</sub>-alkylene chain.

6. A process as claimed in claim 1, wherein the catalyst precursor according to the formula (II) used is N,N-dimethylformamide.
7. A process as claimed in claim 3, wherein the N,N-dimethylformamide hydrochloride, after it has been used as treatment agent, is used as catalyst precursor in the carbonyl chloride synthesis.

CLAIMS AS FILED - OZ 50724

8. A process as claimed in claim 1, wherein most of the carbonyl chlorides used originate from the reaction of carboxylic acids with phosgene in the presence of a catalyst adduct.
9. A process as claimed in claim 1, wherein the carbonyl chlorides to be purified are acetyl chloride, propionyl chloride, butyryl chloride, valeryl chloride, isovaleryl chloride, pivaloyl chloride, caproyl chloride, 2-ethylbutyryl chloride, enanthyl chloride, capryloyl chloride, 2-ethylhexanoyl chloride, pelargonoyl chloride, isononanoyl chloride, capryl chloride, neodecanoyl chloride, lauroyl chloride, myristoyl chloride, palmitoyl chloride, stearoyl chloride, oleoyl chloride, linoleoyl chloride, linolenoyl chloride, arachidoyl chloride and behenoyl chloride, and mixtures thereof.